JE10 MINIATURE HIGH POWER LATCHING RELAY

c UL us
File No.: E134517

CQC
File No.: CQC06017016719

Features

- Maximum switching capability up to 50A
- Lamp load up to 5000W
- Capacitor load up to 200uF (Min. inrush current at 500A/10s)
- Creepage distance: 8mm
- Dielectric strength: more than 4000VAC (between coil and contacts)
- Wash tight and flux proofed types available
- Manual switch function available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (39.0 x 15.0 x 30.2)mm

CONTACT DATA

Contact arrangement	1A, 1C
Contact resistance	50mΩ (at 1A 24VDC)
Contact material	$AgSnO_2$, AgCdO
Contact rating	1A: 50A 250VAC,1 x 10^5 OPS(Resistive) 5000W 220VAC, 3 x 10^4 OPS (Incandescent & fluorescent lamp) 1C: 40A 250VAC,3 x 10^4 OPS(Resistive)
Max. switching voltage	440VAC
Max. switching current	50A
Max. switching power	1A: 12500VA / 1C: 10000VA
Max. continuous current	50A
Mechanical endurance	1 x 10^6 OPS
Electrical endurance	See rated load

COIL DATA at 23˚C

Nominal Voltage VDC	Set/Reset Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance x (1±10%) Ω	
6	4.8	7.8	Single Coil	24
12	9.6	15.6		96
24	19.2	31.2		384
48	38.4	62.4		1536
6	4.8	7.8	Double Coil	2 x 12
12	9.6	15.6		2 x 48
24	19.2	31.2		2 x 192
48	38.4	62.4		2 x 768

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1500VAC 1min
Creepage distance (input to output)		1A: 8mm 1C: 6mm
Pulse width of coil		50ms min. (Recommend: 100 to 200ms)
Operate time (at nomi. volt.)		15ms max.
Release time (at nomi. volt.)		15ms max.
Max. operate frequency		1A: 20 cycles/min 1C: 10 cycles/min
Shock resistance	Functional	100m/s² (10g)
	Destructive	1000m/s² (100g)
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		98% RH, 40˚C
Ambient temperature		-40˚C to 70˚C
Storage temperature		-40˚C to 100˚C
Termination		PCB
Unit weight		Approx. 32g
Construction		Wash tight, Flux proofed

Notes: The data shown above are initial values.

SAFETY APPROVAL RATINGS

UL&CUR ($AgSnO_2$)	1 Form A	Resistive: 50A 277VAC Tungsten: 5000W 240VAC
	1 Form C	40A 277VAC

Notes: Only some typical ratings are listed above. If more details are required, please contact us.

COIL

Coil power	Single Coil: 1.5W; Double Coil: 3.0W

ORDERING INFORMATION

	JE10	-1/	12	-H	S	T	-L2	-R	(XXX)

Type

Version
1: No auxiliary convexity, no manual switch
2: No auxiliary convexity, with manual switch
3: With auxiliary convexity, no manual switch
4: With auxiliary convexity, with manual switch

Coil voltage 6, 12, 24, 48VDC

Contact form **H:** 1 Form A **Z:** 1 Form C

Construction [1] **S:** Wash tight (only for JE10-1 & JE10-3) **Nil**: Flux proofed

Contact material **T:** $AgSnO_2$ **Nil**: AgCdO (No UL approval)

Sort **L1:** Single coil latching **L2:** Double coil latching

Polarity **R:** Reverse polarity (See Wiring diagram) **Nil**: Standard polarity (See Wiring diagram)

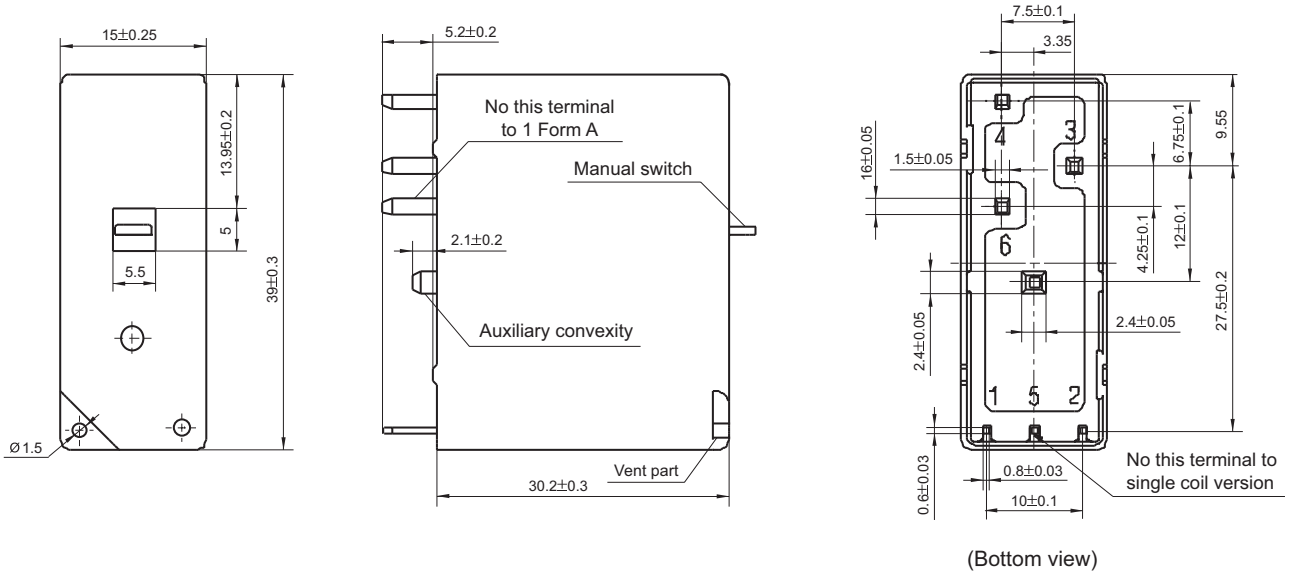
Customer special code [2] (Only for special requirements) e.g. (551) stands for RoHS compliant (Cadmium containing contacts)
(555) stands for RoHS compliant (Cadmium-free contacts)

Notes: 1) Under the ambience with dangerous gas like H_2S, SO_2 or NO_2, wash tight type is recommended; please test the relay in real applications. If the ambience allows, flux proofed is preferentially recommended.
2) JE10 is an environmental friendly product. Please mark a special code (555) or (551) when ordering. (551) stands RoHS compliant with Cadmium contact; (555) stands for RoHS compliant with Cadmium-free contact.
3) As to wash tight type, before using relay, please remove the vent part on the top of the cover.
4) Considering the initial state might be changed in transit (terminal 3# and 4# is opening by default), upon requied, position should be set or reset.
5) As to lamp load, capacitive load, motor load or some occasion asking for according with RoHS, please choose $AgSnO_2$ contact material.

OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

Outline Dimensions



(Bottom view)

Remark: In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

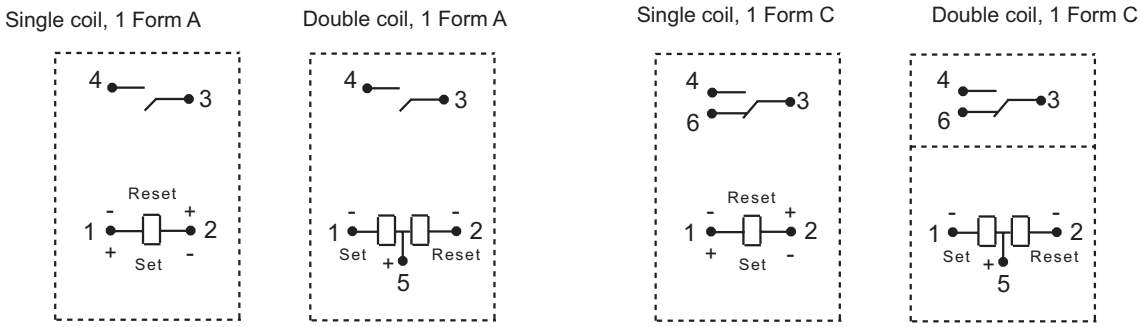
OUTLINE DIMENSIONS AND WIRING DIAGRAM

Unit: mm

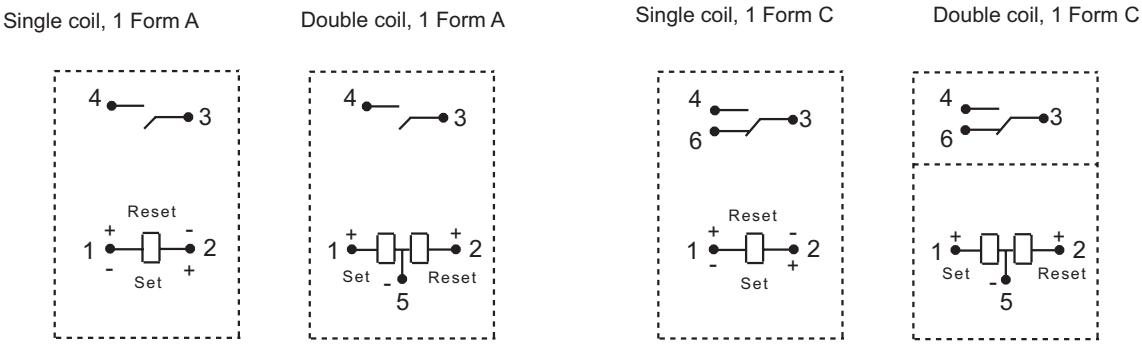
Wiring Diagram

(Bottom view)

Standard polarity (Reset condition)



Reverse polarity (Reset condition)



Notice

1. Relay is on the “set” status when being released from stock, with the consideration of shock risen from transit and relay mounting, relay would be changed to “reset” status, therefore, when application (connecting the power supply), please reset the relay to “set” or “reset” status on request.
2. In order to maintain “set” or “reset” status, energized voltage to coil should reach the rated voltage, impulse width should be 5 times more than “set” or “reset” time. Do not energize voltage to “set” coil and “reset” coil simultaneously. And also long energized time (more than 1 min) should be avoided.
3. In order to avoid changing operate voltage, products should not be kept in strong magnetic field during transportation, storage and application.

Disclaimer

This datasheet is for the customers’ reference. All the specifications are subject to change without notice.
We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user’s responsibility to determine which product should be used only.

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